Paddock (R.H.)

AN ADDRESS

DELIVERED BEFORE THE

RUSH MEDICAL SOCIETY,

IN THE

WILLOUGHBY MEDICAL COLLEGE,

BY

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Willoughby University, Jan. 15, 1846.

PROF. R. H. PADDOCK,

SIR:—The members of the Medical Class having listened, with much interest, to an address upon the subject of Education, recently delivered by you before the Rush Medical Society, most earnestly and respectfully solicit a copy of the same for publication.

Rest assured, Sir, that a compliance with this request will be exceedingly gratifying, not only to members of the Society, but also to all interested in the business of education. The members of the Society are therefore desirous of an opportunity, to give that publicity to the address, which its merits demand.

Very respecfully yours,

NORMAN GAY,
J. H. BUSHNELL,
C. P. PARKILL,
ROBERT SCOTT,
G. WATSON,
A. B. HOLBROOK,
J. Y. CANTWELL,
H. S. PARMENTER,
J. M. HUBBARD.

Committee of Society.

Willoughby Medical College, Jan. 15, 1846.

TO MESSRS N. GAY and others, Committee of the Rush Medical Society.

GENTLEMEN:—Your very polite and flattering note requesting, for publication, a copy of the address recently delivered before you, is just received. I cheerfully place the Address, gentlemen, at your disposal; and if it shall be found to embody principles profitable to you, and to all students into whose hands it may chance to fall, the object for which it was written will be fully accomplished by your kindness.

Accept for yourselves and for your Society, gentlemen, the kindest regards of your friend and instructor,

R. H. PADDOCK.

EDUCATION.

We are fully aware of the popular taste of the day in regard to public addresses. That whose matter and manner are most desired and applauded, that which is most abundantly furnished and most greedily devoured, is *something* NEW. That a sentiment or a practice has prevailed for a long period, and has received the sanction of the wise and the good of the olden time, is no longer any argument in its favor, but is rather a reason for its discontinuance. Men now seem satisfied that old things have, or, at any rate, should have passed away, and that all things, literally, should become *new.* However numerous and respectable may be the number of these novel-seekers and novel-eaters, I must confess, at the outset, that I shall be able to furnish them but a meagre repast upon the present occasion. But though my fare is homely, and my dainties few, and these not highly seasoned, still I trust that my dishes may not *all* be found unpalatable or altogether destitute of nourishment.

I venture to invite your attention for a brief hour, to one of the most trite and threadbare, and yet one of the most important, and therefore useful topics that can be selected. But I can hardly hope to present so familiar a form in a new attire, or so to direct the incident light, that one new feature will be revealed, or an old one rendered more striking.

My theme is the hackneyed subject of EDUCATION; the very announcement of which, may excite the unwelcome anticipation of hearing reiterated, for the ten-thousandth time, facts as familiar, and deductions as uninteresting as our school-boy tasks.

But it often happens, that what is most common, is also most useful, and that which is inherently good and true, cloys not by repetition, and needs not the meretricious decorations of novel and tinsel attire, to secure it attention. Some writer has remarked that the Bible and Euclid are the only two *new books* in the world; and for the same reason, and with much truth too, it may be added, that Old Hundred is the only *new tune,*

On the other hand, fiction and romance, with all their thrilling scenes and striking incidents, are new only upon the first hearing, and become absolutely disgusting upon repetition. A little reflection will convince us all, that the most common objects and the most familiar facts, are those which comtribute most to our happiness and improvement. The bright light and genial heat

of the Sun, have illuminated and warmed our Earth, day by day, for nearly six thousand years; and yet, has that glorious luminary become any the less vivifying or resplendent, by reason of being constantly before our eyes? In the spring time of the year, does any one refuse to love and admire the face of reanimated nature, or to bathe in the balmy air of the south, after being chilled by the nothern blast, simply because this season has uniformly succeeded winter ever since the world began?

With these few preliminary remarks, I proceed to my subject. I do not, however, propose to discuss in detail the topics of common school, academical, or collegiate study. Neither do I intend to pass over the several stages that should be successively commenced, and completed by him who aspires to assume the duties and responsibilities of a professional life. Iprefer to use the word education in a more extended and original sense, in which it signifies to lead forth, to bring out the man, as the statue is brought out of the marble block. Instead, therefore, of tracing minutely the several steps necessary in anyone stage of the process of development, I would rather throw out some suggestions that may be profitable in all of them, and make such general remarks as may have a referance to every effort at cultivation, whether it be of the physical, moral, or intellectual powers.

In the first place, then, *time* is requisite. No great work is commenced, carried forward, and completed in a moment. The Globe itself, though wrought out by the hand of the Great Omnipotent Architect, was not the work of an hour; and if modern geological evidence may be relied upon, the six days of creation corresponded in length with the magnitude of the work done in them.

Time-saving and labor-saving contrivances are so common and so popular among the improvements of the age, that some similar inventions are desired and anxiously expected in our modes of education. The old fashioned routine of dull study, tedious duty, and unwelcome discipline, ought *now*, in this day of steam power and lightning telegraphs, to be wholely discarded. Life is too short and time too precious, to waste the first and brightest of the three and a half brief scores of years allotted us here, in barely making *preparations* to live and to act. Books and teachers should be sought which are up with the times, which can do the drudgery of years in a single term, and which can give the knowledge of a whole science, or of a foreign language, in twelve easy lessons. Pupils should no longer be compelled *to study* to learn. Knowledge should be

infused into their minds, they being only the passive recipients thereof; and when one's intellectual garner is completely filled, he should just retire to make room for his successor.

Thus, in the opinion of many, should the intellect be cultivated, and thus should the mind be educated; that is, taught to think, to act, to reason, and to judge. With just as much certainty and success, might the moral or physical faculties be perfected by a similar process of training. Then could we be made benevolent, humane, and virtuous; or selfish, morose, and vicious; and this too, habitually and permanently, by the teachings and doings of a single hour. Then too could the bones and muscles, the bodies and limbs of the very child be brought to manly size, perfection, and beauty, by the hot-bed culture of a single season.

It may be well for those who speculate upon this theme, to bear in mind the distinction between living men and dead inorganic matter: the latter is perfectly passive and subject to the operations of human skill and artifice, while the former are under the dominion of another and a higher power. The process and operations of a living body, are regulated by a vital principle within, and take place in accordance with laws and conditions over which man has not control. True, he may, to a certain extent, modify results, and accelerate or obstruct the natural and healthful order of things; he may relieve and aid, but he cannot make or compel; he may mar or destroy, but he cannot mend or create; he may prepare the soil and sow the seed, but he cannot cause it to germinate, spring up, and become a blade, bearing fruit; he may bend the twig and prune the tree, but he cannot cause the former continually to increase, until it becomes the latter. So is it with the business of education.—The development of the physical, of the moral, or of the mental powers, is a process of growth, and not of artificial manufacture; and this growth, to be sound and healthful, should be the result of long continued and unwearied exertion. Indeed, the whole process of education, consists in a series of well directed actions, which may only be restrained or directed by the aid of a guide, but which cannot be put forth but by him vicariously. The result of such a course, is an acquired ability of each and every faculty of body and of mind *to act*; to do its duty with energy, promptness and efficiency. This is truly education, and this *only* is education. Wherein any process of training falls short of this result, therein it falls short of the object to be attained by proper culture.

But if the development of our powers is a process of growth, then like all other similar operations in nature, it requires *time* for its completion. Organic changes in living matter, changes

in mental habits of thought, or moral habits of feeling and dispositions for action, are, by a law of nature, brought about slowly by a succession of minute and almost imperceptible variations. Were the bare acquisition of knowledge, the mere accumulation and retention of the facts embodied in literature, science and the arts, all that is desirable in the process of mental training, as too many seem to imagine, then indeed might we, with some propriety, desire and expect the usual period of study to be abridged by novel and ingenious contrivances. Undoubtedly there have been, and may still be many useful and highly philosophical means devised for the purpose of communicating ideas more rapidly, clearly, and definitely, as well as for impressing them upon the mind more forcibly.

He who has the most tact in rendering the difficult and obscure, clear and easy of comprehension; he who can embody his conceptions most happily, and set them forth most distinctly, vividly, and impressively, will be the most meritorious, the most popular, and the best rewarded teacher.

But a simple knowledge of the facts embraced in any, or in *all* the departments of human learning, can never *educate* our intellectual nature. This alone does but render the mind, like the volumes whence it is stored, a mere depository of the thoughts and deductions of other men. It renders men living cyclopedias, convenient books of reference, learned ignoramuses, though often demising themselves wondrous wise.

We are daily encountering multitudes of living witnesses to the fact, that all attemps to *manufacture* intellectual growth, rather than patiently and assiduously to cultivate the mind until it can bear fruit, must prove utterly abortive. Those unfortunate men to whom I allude, were hurried, or more likely, hurried themselves through their preliminary and preparatory courses of study, received instruction, it may be, in abundance, but were not allowed time to digest their knowledge and to grow by the healthful exercise of their own powers. They were launched forth upon the agitated waters of the busy and bustling sea of life, in their unseasoned and unproven vessels, hastily and carelessly constructed, assumed burdens altogether disproportionate to the strength of their feeble craft, and, of course, made shipwreck the first rising gale. Multitudes of such men may now be found in almost all the responsible stations and professions in society. Among them may be seen Legislators, that should be wise, and Judges, that should be discreet; Teachers, both sacred and profane, that should be learned, and Lawyers, that should be competent, as well as crafty and confident; and even Doctors too, who, of all men, *need* the most profound and varied attainments. All these are but awaiting the calamity that must

speedily overtake them. The very pillars and foundations upon which which they rely, and upon which their prospective superstructure is to rest, are but hollow unsubstantial reeds, of mushroom growth, and must, of necessity, be crushed beneath the first superincumbent load.

The business of education not only demands time for its completion, but it is also necessary that a natural order and sequence should be observed in its several stages and processes. The capstone should not be laid before the foundations are completed; the polishing wheel should not be used before the surface has been rendered hard, compact and uniform. The higher scientific and professional attainments should not be attempted before the more elementary branches are studied and thoroughly comprehended.

In all our acquisitions, we proceed from the known to the unknown, and what is new and not understood, is always explained by a reference to what is familiar in some other department of knowledge. The grammar of a strange language, is learned by a constant reference to the elemetary principles of some other known, and familiar tongue; and the language itself is then studied by a continual reference to its alphabet and grammer. In a similar manner do we arrive at a knowledge of all that is new, in the circle of human inventions and acquisitions. We proceed from what is simple, elementary, and completely understood, to that which is complex, abstruse, and utterly unknown. Yet how often is it the case that pupils, through their own impatience, or by the advice of incompetent friends, hurry over the earlier and more fundamental parts of our education, and then plunge, at once, into the depths of scientific lore, whose waters they are alike unable to navigate or to fathom. Then, however untiring may be their diligence, however strong their native powers, and however tractable may be their dispositions; still, they must of necessity exhaust their energies in a vain struggle, present a ludricious and pitiful spectacle to by-standers, and finally give over and cease their efforts, dispirited disappointed, and lamented.

The varied acquisitions, physical, mental, and moral, which, in the aggregate, make up an education, are not inherent in man at birth, neither can they be purchased for money, nor manufactured to order. Our minds, as well as our bodies, must pass through the period of childhood, and must make the childlike acquisitions appropriate thereto, before they can put away childish things. Then must we receive the discipline and make the acquisitions of juvenesence before we can cope with the strong and the mighty, who stand ready to meet and to challenge us as soon as we enter upon the threshold of manhood.

There is no other way in which the oak can become the monarch of the forest, but by first being an acorn, the bauble of a child, then a tender shoot, bent down by the foot of every passer by; then a mere sapling, afterwards a tree, and finally the giant of the wood.

Order, we are told, is Heaven's first law; and if so, the teachings of experience and observation indicate to us some connection between the laws of Heaven and Earth. We are all conscious that our own strength is progressive; that we have, since our earliest recollection been gaining in knowledge and wisdom, and that we are now better able to meet opponents and to surmount difficulties, than ever before. We observe too, that the same is true of others, and that all animated nature rises from a weaker to a stronger state of being. The less always precedes the greater, and is an indispensable prerequisite to its existance. Let us not then attempt to abrogate this law of Heaven and Earth, by forestalling the operations of nature. Let us rather conform to it, and copy after it in our efforts to aid in developing the natural powers of man. Let us cultivate long, assidiously, cautiously, and industriously, and then wait patiently for the fruit.

In the next place, it is necessary for the completion of the process of education, that there be not only sufficient time allotted to each of its several stages, and a proper and natural order observed in their arrangement and succession, but also that each and every stage be completely perfected before the next one is commenced. In this particular too, as in the preceding, we should copy nature. She points out to us in all her creative processes, the track we should pursue in the only work we have to do which resembles a creation; in moulding and fashioning the plastic material of the human mind. Even the world of inanimate nature speaks of the perfection which characterizes every work of the Great Architect. The beautiful chrystal of adamantine hardness, that has been secluded from mortal eyes for centuries, in the dark clefts or caverns of the rocks, when at length discovered and brought to light, come forth all sparkling and glorious, more symmeterical, exact, and mathematical in its form and proportions, than all the labored of human art and human industry. Mark the lavish expenditure of skill, and the perfection of taste displayed in fashioning and coloring the petals of a single flower, and then consider the immense variety of their species, too great for the botanist even to enumerate; the prodigality with which they are strewed over the face of the whole earth, whether inhabited by man, or traversed only by the stupid brute; and yet, though myriads of them are thus annually "born to blush unseen," not one of them is carelessly fashioned or rudely

made; not one is left incomplete in structure or unadorned by the matchless pencil of the Great Author of light and beauty. The proudest and wealthiest monarch of earth, with all his power and splendor, could never adorn himself with robes as gorgeous as those worn by the lonely decorations of a wild prairie, blooming away their life unseen and unheeded by all, except by Him who planted them there and bade them flourish.

Such being the perfection of nature's workmanship in the mineral and vegatable creations, still greater and more wonderful, if possible, is it, in the construction of the more highly organized and vital tribes of animals; and especially is it to be found, by those who search, in the structure of that masterpiece of divine mechanism which was made in the image of the maker himself. The perfection which characterizes the wonderful fabrics of divine workmanship, results from the perfection of the innumerable parts and portions of which each is constituted. The mineral, the vegetable, and the annimal, all have their ultimate particles curiously wrought, nicely adjusted, and adapted to one another in a most wonderful manner. What must be the delicacy and minuteness, and yet the matchless perfection of that microscopic mechanism, whereby is separated from the heterogeneous materials of our usual aliment, those portions, and those only, which will contribute to the healthful growth and nourishment of the body. The ultimate structure of the organs by which this, and all other vital processes are accomplished, is wholly invisible to the unassisted eye; and yet, so perfect and so permanent is this invisible machinery, that for three score and ten long years, it ceases not, day or night, to execute faithfully and incessantly the duties imposed upon it. Look where we may, and upon whatever structure we please, provided it be not the work of man, and the perfection of nature's operations is constantly meeting and delighting the eye. Her great and glorious temple in which we live, with the Earth for its pavement and the spangled Heavens for its roof, as well as every object in this temple, both animate and inanimate, is made up of an infinite multitude of bright and polished atoms, each exactly filling up its alloted space. The reflection from her sheet of placid waters is such as no mirror can rival: the clear blue of her heavens, painted by her own polarized beam, is such as no dye can imitate; for the ultimate particles of her waters and of her air, are more curiously wrought and more highly finished, than mortal arts can imitate, or mortal eyes discern. Vast masses of matter, however huge and unsightly they may at first appear, no less than the minutest molecules exhibit alike that finish and perfection which can result only from the combination of highly wrought and polished atoms. The moun-

tain that pierces the clouds, no less than the mote that floats in a sunbeam; the ocean that covers the globe, like the drop that reflects the gay rainbow; and the sun that illumines the universe, as well as the gem that glitters in a bracelet, exhibit the same marks of inimitable perfection and skill—the same lines of matchless beauty and sublimity.

In that pseudo creation which it is our business to execute; in unfolding and training for a season the gem of immortality, while, like a crysalis, it lies imbedded in its perishable mould; surely we cannot copy too closely, or study too diligently the operations of infinite wisdom. As we observe the body to acquire dimension, strength, vigor and beauty, by the gradual, and yet constant deposition of exceedingly minute particles, each of which has previously undergone the tedious processes of digestion and assimilation; so should we endeavor to amplify and perfect the mind by exercising its several faculties upon topics suited to its age and stage of advancement. Let it, like the body, be fed with nourishment appropriate to its digestive powers. Let it not be put upon highly seasoned meats and condiments, while as yet milk only can be assimilated, and especially let it not be *crammed*. In each and every period of its growth, let that which is attempted, be completely and thoroughly perfected before any new attainment is suffered to occupy the thoughts. Whether an acquisition be childlike or manlike, if it is suited to the age and condition of the mind, and if it is *attempted*, let it be *completely perfected*.

The conviction should be indelibly impressed upon the mind of every learner, that whatever is left incomplete and unfinished; whatever is but half comprehended or half executed, mars the beauty and fair proportions of his intellectual growth, as a defective or withered limb would destroy his bodily symetry.

Of course this would be impossible if every one should, in the course of his education, attempt every acquisition within the power of mortals; but this is neather necessary nor desirable. Each and every faculty and feeling should, in its turn, be suitably exercised upon something; and that something, whatever it may be, should be finished and complete in itself. A smattering of all things should be most studiously avoided, for this is compatible only with an ignorance of all things. Each and every acquisition should be individual in its character, it should be knowledge or skill in the practice of some *one thing*. If, for instance, history be the subject of attention, let the history of some one age or nation be pursued by itself, and let all its courts and circumstances become perfectly familiar, stereotyped in the mind.

This may seem to some to be a slow and tedious mode of men-

tal progression: but let such remember, that structures whose foundations are slowly and deeply laid, are more likely to be permanent and abiding. Besides great treasures are often accumulated by the continual addition of small gains. The Frenchman laboring with his pick axe at the base of a huge mountain, adopted for his motto, "*Peu a peu*," little by little, and the mountain gradually disappeared before his incessant stroke. The old Roman Magi, too, instructed their pupils to learn "*Multum, non multa*," *much*, not *many things*. In fact, he who would become truly and thoroughly educated and learned, must have the independence to remain ignorant of many things which most superficial minds have acquired, and will, of course, expect him to know.

Those who have been really distinguished and substantially useful to mankind—who have originated ideas as well as reflected and transmitted the thoughts of others, have been educated upon this plan. Their knowledge may not have been co-extensive with the vagaries of the lunatic's brain, or with the figments of the novelist's imagination; for that life is short and learning long, was a proverb even among the ancients; and another among them, equally true and important, is this: "*we can not all do all things*!" Still the attainments of these men were prefound, if not universal; and they were highly useful, because real, substantial, and always available. They did not possess all learning and all knowledge, neither can we; but we may know some things, yes, many things; we may know most that is useful and *all* that is indispensable, if not all that is desirable, and we may know it thoroughly and perfectly.

True it is that the demand at the present day, is rather for surface than for depth of attainment; and true it is that the present generation of literati, reflect more light than they radiate, for the very obvious reason that their surface is polished, while all within is dark. But such is not and have not been the real luminaries of our race. They are, at best, but pale satellites, which may indeed feebly illumine, but cannot warm and kindle into life.

It is deemed the perfection of the imitative arts, to copy nature exactly. The marble that speaks and the canvass that breathes, are those which most closely resemble the speaking and breathing body in life. It is therefore the great endeavor of every artist, to impress upon inanimate matter, the lines and the hues which characterize the habitations of vitality; and the principal reason why so few are successful in their attempts, is this: they strive to attain the *ends* accomplished by nature, without imitating the *means* which she employs in the process.—They would fain copy the original by a kind of Daguereotype

operation, but have not the patience to spend wearisome days and nights in executing the several parts with a pencil. They wish to delineate the *whole*, without being at the trouble to make an exact fac-simile of every part.

Nature, on the other hand, always produces perfection in the aggregate, by first perfecting every constituent atom. The most powerful magnifiers so far from revealing any defects in her work, as they always do even in the master pieces of human art, only serve to disclose new beauties and perfections, and to lay open a world of Liliputian wonders, where we least looked for any display of beauty or skill. Those few immortal artists "who were not born to die," always have been, and still are the men who copy nature in the *mode*, as well as in the matter wrought. Zeuxis, when asked why he wasted so much time upon his pictures, replied in the true laconic style, that he 'painted *in time, and for time.*

Many of our teachers fail in their attempts fully to develop the powers of their pupils, for the same reason that so many of our painters and sculptors are unsuccessful. They do not carefully study and imitate the manner in which Nature executes her unequaled productions. The *result* of her work is before them in every object that meets their eyes, but the secret preliminary and preparatory processes are not so evident. The splendor of the rainbow is perfectly obvious, and is admired by all as an exhibition of Nature's work ; but the previous polishing of ten thousand little globes of water that constitute the centre and circumferance of every drop concerned in the production of this beautiful phenomenon, is neither seen nor contemplated by most minds while witnessing the glorious result of the operation. There is no other possible way of giving the impress of perfection to any work, physical or intellectual, but by completely finishing and perfecting each and every one of its several parts. Such is Nature's law, and it may not be abrogated by man.

I have attempted, in the foregoing remarks, to set forth, in a very brief and plain manner, some of the more general and important principles to be observed in cultivating the human mind. In their practical application, as in that of all other general rules, there is abundant room for the exercise of ingenuity, discretion, and sound common sense.

Perhaps it may be thought by some, that to the instructors of youth, such suggestions as the preceding may be quite appropriate, while to the other professions, and to the community at large, they have little value and still less intent.

But is it not true, in more senses than one, that men are but children of a larger growth? Should any class of men, and es-

pecially should our own profession, ever cease to regard and to treat themselves otherwise than as pupils and learners? In our preliminary education, both academical and professional, we do, we can but begin to learn. If we have been so fortunate as to be generously supplied by nature and by friends, with the ability and with the opportunity to fit ourselves for the duties and responsibilities of a professional life, when entering upon that life we must all feel, and if ingenous, must confess that we have but just acquired the ability to learn. And as we advance in life, in wisdom, and in knowledge, we shall be still more forcibly impressed with the necessity of protracting our pupilage, if not in the university, yet in a school which is far more extensive, and which embraces within it all other institutions of learning, as subservient departments, *in the great school of Nature.* Her halls are never filled with learners—her topics of instruction are never exhausted—her course of study is never completed.

The mind, unlike the body, does not speedily arrive at maturity, and then cease to grow; for when the latter is crumbling to decay, the former is heard to declare, "I seem but to have wandered a little upon the shore of the great ocean of truth, and to have collected a few trifles therefrom, while its vast extent and depths are still all unknown to me."

If then our pupilage should close only with life, surely the principles that guided our earlier efforts at improvement, should not be abandoned in our more mature investigations. The same food that nourishes the youth, and the same general habits and regulations which contribute to his physical development, will also sustain, support, and invigorate the physical man. In like manner the same general principles of mental discipline, which are best calculated to unfold and strengthen the youthful mind, are, when duly modified, best suited to conduct our intellectual progress onward and upward to the close of life.

Besides, mental and physical developments do not always keep pace with each other in the same individual. As we sometimes witness remarkable instances of precocious minds, so do we much more frequently encounter intellectual infancy conjoined with adult years. Nature, true and faithful to her task, has assimilated and appropriated to use the aliment suited to nourish the body, while the mind, neglected or misimproved, has not received, or has not digested, the elements of its growth. Such, therefore, though apparently of manly size and proportions, are, in reality, still in their intellectual youth, and for such the discipline of youth is still necessary. By all, however, of whatever age, class, or profession, the leading principles to be observed in mental culture, are essentially the same.

I do not flatter myself that I have touched upon *all* those leading topics upon the present occasion: still, if the few hints which have been given could exert that influence over methods of study and habits of thought, which their inherent value authorises them to do, we should less frequently have occasion to blush at those intellectual monstrosities which now appear, numerous and diversified, even in the ranks of the, so called, learned professions.

Talents never so bright, diligencc unparalleled, and study the most severe, unless guided by proper rules and directed in the right channel to their appropriate objects, may all be exhausted in vain. Like a noble ship without a rudder, or like a locomotive engine without a guide, they may only render their possessor the more ruinous, by giving him the ability to desolate the track over which he may pass.